M/035/011

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Elaine J. Dorward-King, Ph.D.
Director, Environmental Affairs

Kennecott

March 21, 1996

Mr. D. Wayne Hedberg
Permit Supervisor, Mineral Regulatory Program
State Division of Oil, Gas and Mining
355 West North Temple
3 Triad center, Suite 350
Salt Lake City, Utah 84180-1203

Re: Secondary Tailings Pipeline Project

Dear Mr. Hedberg:

Kennecott Utah Copper (KUC) indicated to you in a letter dated January 2, 1996, that KUC would provide additional details regarding the Secondary Tailings Pipeline Project upon the completion of an engineering design evaluation. The design evaluation has recently been completed and a final design for the pipeline has been selected. The new pipeline will generally run parallel to the existing pipeline (approximately 30 ft. west of center), within the existing pipeline corridor. The new pipeline will consist of 60 inch diameter concrete and/or steel sections specifically designed to minimize wear, including approximately 5,900 ft. of rubber-lined steel pipe and 59,000 ft. of reinforced concrete pipe. Drawing No. 451-T-8016 is attached to provide an overview of the project area.

In past correspondences regarding this subject, the Division has requested specific plans for this pipeline following mine closure as well as information explaining why the three existing pipelines (ie. existing tailings line, return water line, and copper concentrate line) are no longer sufficient to meet KUC's post mining water management objectives. Detailed information to substantiate the need for this additional pipeline to remain upon mine closure is provided below.

The three existing pipelines mentioned above are and will continue to be a major part the overall KUC water management program. The new pipeline will significantly improve KUC's current and post-closure water management in two significant ways. First, the new pipeline will allow the existing pipeline to be taken out of service for maintenance and repairs. It should be noted that each pipeline will require periodic down-time for maintenance in the years following mine closure,

as well as while the mine is operating. In addition, it will provide an immediate alternate means of transport and containment of tailings and water in the event of a catastrophic failure of the existing line. This is true in both the short term (during mine life) for tailings/water and long term (after mine life) for waters of various qualities. The second reason why the new pipeline is needed for long term water management is for water segregation. In general, three types of water have been identified on the south end of KUC property. Those waters include clean water (meteoric and ground water), gray/contact water (meteoric water that has come in contact with a waste rock dump and groundwater from mineralized bedrock), and water with low pH and high metals content (leach water from waste rock dumps).

At the end of mine life, these three water types will be present and must be properly managed. Part of the post closure water management plan is to keep these waters separated to minimize the volumes of water that will require some form of treatment as well as to maximize the beneficial uses of cleaner waters. For example, some of the clean water meets drinking water standards and could potentially be supplied to local municipalities. Some gray water meets secondary water quality standards and may be used for irrigation water. Some water from the North End facilities (ie. Smelter, Refinery, Tailings Pond, and associated wetlands) may be transported back to the South End facilities for many of the same uses. In order to maximize the beneficial uses of waters of various qualities after mine life, each of the discussed pipelines (if not more) will be required. The long term use of all of the pipelines after mine life may be a critical factor in post mine water management, especially with the increased demand from the public for primary and secondary water supplies.

As described in previous correspondence, a 50 ft. wide area on the west side of the existing pipeline was prepared to refurbish the existing pipeline or to provide a base for a new pipeline. As mentioned above, a new pipeline will be installed in the 50 ft. wide area. The preparation of the area included a few cut and fill operations. Where possible, these disturbed areas were reduced in slope to 3 horizontal to 1 vertical and are in the process of being revegetated/reclaimed to standard final reclamation parameters. Reclamation work within the pipeline corridor will be described in KUC's 1996 Reclamation Activities Plan that will be submitted by the end of the month.

KUC is willing to provide a revised surface facilities map showing the new tailings pipeline as well as amend the approved mine plan text to reflect the addition of the new pipeline. However, KUC believes that using the new pipeline for water management at the end of mine life will enable KUC to more effectively manage various water quality streams to benefit and protect human health and the environment. Prior to submitting an application to amend the facilities map and mine plan text, KUC would like to resolve the issue of post mine life use of the new tailings pipeline.

KUC appreciates the Division's cooperation in resolving these issues. If you have any questions or concerns regarding this matter, please contact me at 252-3179 or Jon Cherry of my staff at 252-3126.

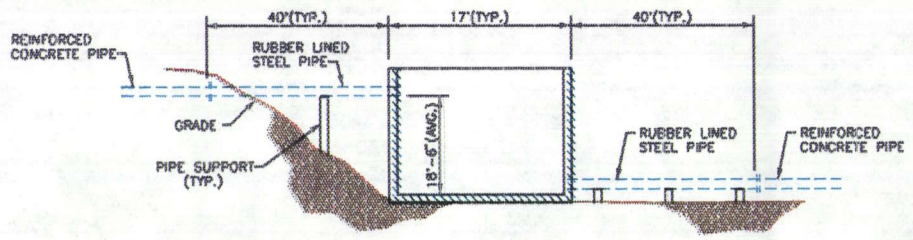
Sincerely,

Elaine J. Dorward-King

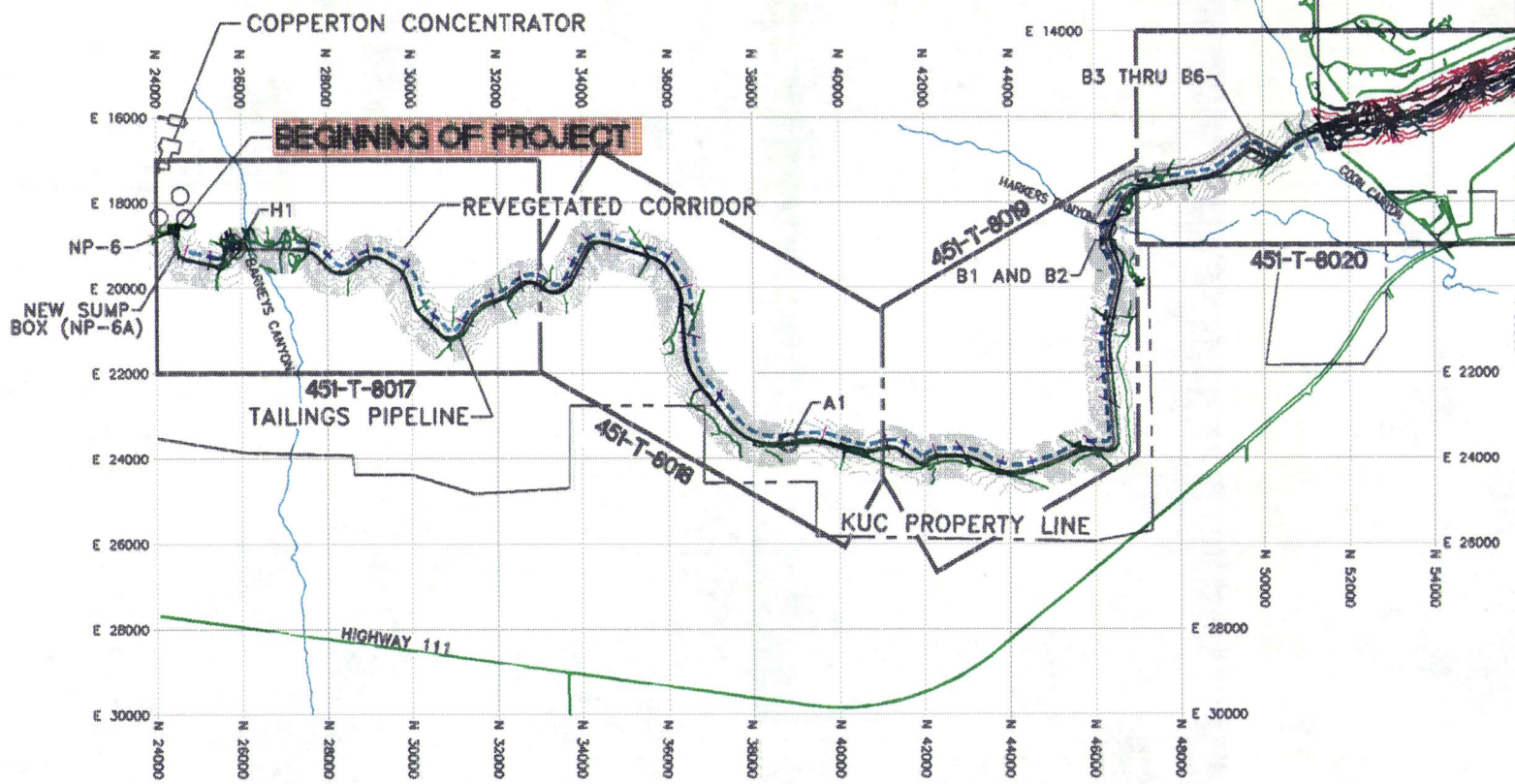
Elaine Dorward-King, Ph.D.
Director, Environmental Affairs

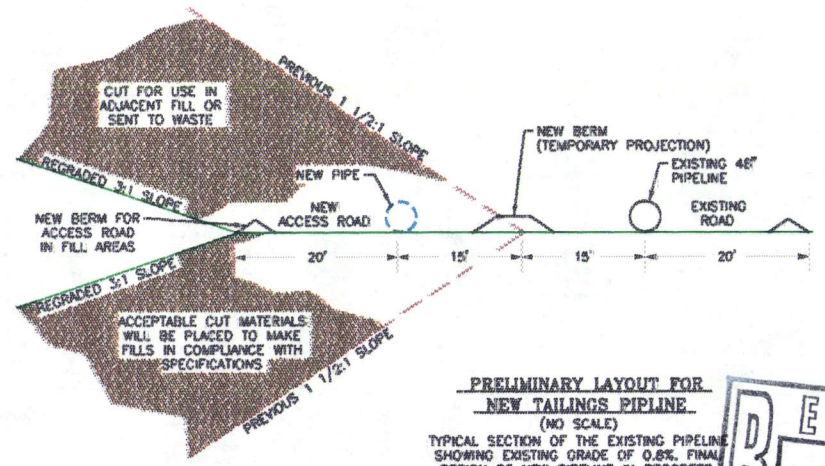
EDJK/JCC/jcc

Attachment



TYPICAL NEW DROP BOX DETAIL
NO SCALE





PRELIMINARY LAYOUT FOR NEW TAILINGS PIPLINE
(NO SCALE)
TYPICAL SECTION OF THE EXISTING PIPELINE SHOWING EXISTING GRADE OF 0.8%. FINAL DESIGN OF NEW PIPELINE IN PROGRESS.

DRAWING REFERENCE:

451-T-8017	LOCATION PLAN & DESIGN DATA -- SHEET #1
451-T-8018	LOCATION PLAN & DESIGN DATA -- SHEET #2
451-T-8019	LOCATION PLAN & DESIGN DATA -- SHEET #3
451-T-8020	LOCATION PLAN & DESIGN DATA -- SHEET #4
451-T-8021	LOCATION PLAN & DESIGN DATA -- SHEET #5
451-T-8022	LOCATION PLAN & DESIGN DATA -- SHEET #6
451-T-8023	DETAILS

LEGEND
- EXISTING PIPELINE
- NEW PIPELINE
- CULVERTS
- DROP BOXES

SCALE IN FEET
0 2000 4000

PLANT PROJECTS GROUP			KENNECOTT UTAH COPPER
SCALE: 1" = 2000'		DATE	COPPERTON TAILINGS PIPELINE CULVERT CROSSINGS & EXTENSIONS OVERALL PROJECT AREA MASTER PLAN FOR DETAILED SHEETS
DESIGNED BY	RKC	2/14/96	
DRAWN BY	RKC	2/28/96	
CHECKED BY			
PROJECT ENGINEER			
PROJECT MANAGER			
Job No. ---	Dwg. No. 451-T-8016	REV. 0	